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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,232	10/31/2003	Emily F. Hamilton	12912/1	2295

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EXAMINER
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ROBERTS, DARIN

ART UNIT	PAPER NUMBER
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3762

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,232	<b>Applicant(s)</b> HAMILTON ET AL.	
	<b>Examiner</b> Darin R. Roberts	<b>Art Unit</b> 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/31/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-5 & 7-20 are rejected** under 35 U.S.C. 102(b) as being anticipated by Frank et al. (US 5042499 A1).

In reference to ***claims 1 & 17***, the Frank et al. reference teaches a method for segmenting a heart rate signal to identify heart rate feature events comprising of receiving a heart rate signal including a sequence of sample points (see column 1, lead lines 26-31 & column 4, lead lines 24-34) and the use of a processing unit for processing the heart rate signal to generate a set of segments (see column 4, lead lines 24-31). Frank et al. also teaches each a segment being formed by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal wherein the sample points between said start sample point and end sample point lie within said bounded area (see fig. 8 & column 6, lead lines 40-44). Hamilton teaches processing the set of segments to generate a plurality of sections,

each section being indicative of a heart rate feature and releasing a signal indicative of said plurality of sections (see column 1, lead lines 13-23 & fig. 8). The Frank et al. processor alone performs the function of multiple processing units.

In reference to **claim 3, 4, 8, 19, & 20**, a trapezoid is defined as a quadrilateral with two sides parallel and a parallelogram is defined as a quadrilateral with opposite sides parallel (and therefore opposite angles equal) (see <http://mathworld.wolfram.com/Trapezoid.html>). The Frank et al. device teaches segmenting the detected heart rate into rectangular partitions (see figs. 8-10), and thus such partitions fit the definition of the trapezoid.

In reference to **claims 5 & 20**, they are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Frank et al. (US 5042499 A1) because the entire heart rate signal is a sampling of an actual heart rate, each segment presented would inherently possess an approximate polynomial number of sample points. If not inherent it would have been obvious to one of ordinary skill in the art to use such an approximation because to reproduce an exact replica of a signal one would have to sample said signal infinitely and the presentation means use to present said signal would have to be capable of presenting said infinite number of sample points.

In reference to **claim 7 & 23**, the Frank et al. device teaches segmenting the detected heart rate into rectangular partitions (see figs. 2, 3, & 6B), and thus such partitions fit the definition of the trapezoid. Frank et al. also teaches a method wherein a trapezoid associated with a given segment of said heart rate signal has a height

conditioned at least in part on the basis of the variability of at least part of said heart rate signal (see figs. 8-10).

In reference to **claim 8 & 24**, the Hamilton et al. publication teaches having the least part of a heart rate signal enclosed within a trapezoid (see figs. 1 & 8-10).

In reference to **claims 9-11, 25- 27**, an individual's heart rate will inherently possess a certain drift and/or excursion dependent upon an individual's activity level and/or health (see column 19, lead lines 65-68 and column 10, lead lines 10-26).

In reference to **claim 12 & 28**, the Frank et al. device teaches a method wherein a signal indicative of a plurality of heart rate sections includes a list of labeled sections including a plurality of data elements, each data element being associated with a respective section and including a label component, the label component being indicative of either one of an acceleration event, deceleration event and baseline event (see column 6, lead lines 32-34 & column 23, lead lines 63-65).

In reference to **claim 13 & 29**, the Frank et al. device teaches providing a picture of an individual's heart rate continuously, over an extended period of time. To do such one would inherently use a recursive process (see column 1, lead lines 26-31).

In reference to **claim 14 & 30**, the Frank et al. device teaches a method wherein said recursive process includes forming a segment of said set of segment by enclosing a portion of said heart rate signal in a bounded area, thereby leaving at least one remaining portion of the heart rate signal, the at least one remaining portion including sample points of the heart rate signal excluded from the enclosed portion.

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Hamilton et al. device also teaches recursively repeating the recursive process of forming a segment for said at least one remaining portion of said heart rate signal until a certain condition is met (see figs. 8-10 & column 6, lead lines 32-34 & column 23, lead lines 63-65).

In reference to **claims 16 & 32**, the Frank et al. device teaches method where said heart rate signal is indicative of a fetal heart rate signal (see column 1, lead lines 15-19).

In reference to **claims 49 & 50**, the Frank et al. device teaches a fetal monitoring system comprising a sensor for receiving a signal indicative of a fetal heart rate an apparatus suitable for monitoring the condition of a fetus, said apparatus comprising of an input coupled to said sensor for receiving a signal indicative of a fetal heart rate (see abstract). The Frank et al. device teaches a feature detection module coupled to said input, said feature detection module implementing a processing unit adapted for processing the heart rate signal to generate a set of segments, each segment being generated by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal, wherein the sample points between said start sample point and end sample point lie within said bounded area (see figs. 8-10 & column 6, lead lines 32-34 & column 23, lead lines 63-65). Frank et al. teaches a processing unit adapted for processing the set of segments to generate a plurality of sections, each section being indicative of a heart rate feature (see figs. 8-10 and column 6, lead lines 32-34 & column 23, lead lines 63-65). Frank et al. teaches a

post processing module coupled to said a feature detection module, said post processing module being adapted for deriving information on the basis of the heart rate features associated with said set of segments (see fig 1, & column 3, lead lines 11-26). Frank et al. teaches an output for releasing the information derived from the heart rate features associated set of segments (see fig. 1) as well as an output unit coupled to the output for said apparatus, said output unit being suitable for displaying the information derived from the heart rate features associated with said set of segments (see figs. 1 & 8-10 and column 6, lead lines 32-34 & column 23, lead lines 63-65).

**Claim 1, 15, 17, 19, & 29-31 are rejected** under 35 U.S.C. 102(e) as being anticipated by Cohen (US 5520176 A).

In reference to **claims 1, 17, & 19**, the Cohen reference teaches a method for segmenting a heart rate signal to identify heart rate feature events comprising of receiving a heart rate signal including a sequence of sample points (see Figs. 3A-H & 4) and the use of a processing unit for processing the heart rate signal to generate a set of segments (see fig. 1). Cohen also teaches each a segment being formed by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal wherein the sample points between said start sample point and end sample point lie within said bounded area that can be defined as a trapezoid (figs. 3A-H & 4). Cohen teaches processing the set of segments to generate a plurality of sections, each section being indicative of a heart rate feature and releasing

a signal indicative of said plurality of sections (see column 3, lead lines 45-50). The Cohen et al. processor alone performs the function of the claimed multiple processing units.

In reference to **claim 29** the Cohen patent teaches an apparatus wherein said a processing unit inherently implements a recursive process for generating said set of segments (see figs. 3A-H).

In reference to **claim 30**, the Cohen patent teaches an apparatus wherein said recursive process includes forming a segment of said set of segments by enclosing a portion of said heart rate signal in a bounded area (see figs. 3A-H, 4, & 5), thereby leaving at least one remaining portion of the heart rate signal. The at least one remaining portion including sample points of the heart rate signal excluded from the enclosed portion. Cohen also teaches repeating the aforementioned recursive process recursively for said at least one remaining portion of said heart rate signal until a certain condition is met (see figs. 3A-H, 4, & 5).

In reference to **claims 15 & 31**, the Cohen et al. device teaches a method wherein a certain condition is met when the at least a portion is below a pre-determined threshold (see column 3, lead lines 43-49 & column 2, lead lines 5-16).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 5, 6, 21, 22, 33, 35-39 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Frank et al. (US 5042499 A).

In reference to **claim 33**, the Frank et al. reference teaches a method for segmenting a heart rate signal to identify heart rate feature events comprising of receiving a heart rate signal including a sequence of sample points (see column 1, lead lines 26-31 & column 4, lead lines 24-34) and the use of a processing unit for processing the heart rate signal to generate a set of segments (see column 4, lead lines 24-31). Frank et al. also teaches each a segment being formed by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal wherein the sample points between said start sample point and end sample point lie within said bounded area (see fig. 8 & column 6, lead lines 40-44). Hamilton teaches processing the set of segments to generate a plurality of sections,

each section being indicative of a heart rate feature and releasing a signal indicative of said plurality of sections (see column 13-23 & fig. 8). The Frank et al. processor alone performs the function of multiple processing units.

The Frank et al. publication does not explicitly teach placing all of the aforementioned information onto a computer readable storage medium.

However it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claims 35, 36, & 39**, the Frank et al. device teaches segmenting the detected heart rate into rectangular partitions (see figs. 2, 3, & 6B), and thus such partitions fit the definition of the trapezoid. Frank et al. also teaches a method wherein a trapezoid associated with a given segment of said heart rate signal has a height conditioned at least in part on the basis of the variability of at least part of said heart rate signal (see figs. 8-10), however the Hamilton et al. reference does teach bounded area is a trapezoid that can be defined as a parallelogram (see figs. 2, 3, & 6B).

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claims 6, 21, 22, 37, & 38** the Frank et al. reference does not teach the use of a best-fit line, however in the field of graphical data analysis the use of a best-fit line is quite common.

Thus it would have been obvious to one of ordinary skill in the art to apply a line of best fit to the heart rate data to reveal a trend of some sort. It would have also been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

**Claim 1, 17, 6, 22, 33-43, & 45-48 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. (US 2003/0208128 A1).

In reference to **claim 1, 17, 6, 22, 37, & 38**, the Hamilton et al. reference teaches a method for segmenting a heart rate signal to identify heart rate feature events comprising of receiving a heart rate signal including a sequence of sample points (see pp. [0037] & pp. [0067]) and the use of a processing unit for processing the heart rate signal to generate a set of segments (see pp. [00017] and fig. 2). Hamilton et al. also teaches each segment being formed by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal wherein the sample points between said start sample point and end sample point lie within said bounded area (see pp. [0037] & pp. [0067] & fig. 2). Hamilton teaches processing the set of segments to generate a plurality of sections, each section being indicative of a heart rate feature and releasing a signal indicative of said plurality of sections (see fig. 2 & pp. [0067]). Hamilton et al. also teaches the use of multiple processing units (see pp. [0017] & [0018]).

The Hamilton et al. reference does not teach the use of a best-fit line, however in the field of graphical data analysis the use of a best fit line is quite common.

Thus it would have been obvious to one of ordinary skill in the art to apply a line of best-fit to the heart rate data to reveal a trend of some sort. It would have also been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claim 33**, the Hamilton et al. device teaches a computing apparatus for segmenting a heart rate signal to identify heart rate feature events, said computing apparatus (see pp. [0005] & pp. [0006]) comprising of a memory unit, a processor operatively connected to said memory unit (see pp. [0087]). Hamilton et al. teaches receiving a heart rate signal including a sequence of sample points processing the heart rate signal to generate a set of segments. As well as each segment being generated by enclosing a portion of said heart rate signal in a respective bounded area, and having the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal. The sample points being between said start sample point and end sample point lie within said bounded area (see pp. [0037] & pp. [0067] & figs. 2 & 6). Hamilton et al. teaches processing the set of segments to generate a plurality of sections, each section being indicative of a heart rate feature and releasing a signal indicative of said plurality of sections (see fig. 2 & pp. [0067]).

The Hamilton et al publication does not explicitly teach placing all of the aforementioned information onto a computer readable storage medium.

However it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claim 34**, the Hamilton et al. reference does not teach the use of the a computer readable storage medium wherein the heart rate feature is selected from the set consisting of an acceleration event, a deceleration event and a baseline event. However the Hamilton et al. reference does teach a heart rate feature that is selected from the set consisting of an acceleration event, a deceleration event and a baseline event (see pp. [0083] and fig 6B).

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claim 35, 36, 39, & 40**, the Hamilton et al. reference does not teach the use of a computer readable storage medium wherein a bounded area associated with a users heart is a trapezoid, however the Hamilton et al. reference does teach bounded area is a trapezoid that can be defined as a parallelogram (see figs. 2, 3, & 6B).

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claims 41, 42, & 43**, the Hamilton et al. device does not teach placing an individual's drift or excursion onto a computer readable medium, however the

Hamilton et al. publication does teach detecting an individual's heart rate which will inherently possess a certain drift and/or excursion dependent upon an individual's activity level and/or health.

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to record the drift and excursion to allow for the transport of data from one device to another.

In reference to **claim 45**, the Hamilton et al. device teaches providing a picture of an individual's heart rate over an extended period of time. To do such one would inherently use a recursive process, however Hamilton et al. does not teach placing such a program onto a computer readable medium

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to record the drift and excursion to allow for the transport of data from one device to another.

In reference to **claim 46**, the Hamilton et al. device teaches a method wherein said recursive process includes forming a segment of said set of segment by enclosing a portion of said heart rate signal in a bounded area, thereby leaving at least one remaining portion of the heart rate signal, the at least one remaining portion including sample points of the heart rate signal excluded from the enclosed portion. Hamilton et al. device also teaches recursively repeating the recursive process of forming a segment for said at least one remaining portion of said heart rate signal until a certain condition is met (see figs. 2 & 6B, & pp [0009] & [0010]). However Hamilton et al. does not teach placing such a process onto a computer readable medium.

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claim 47**, the Hamilton et al. device teaches a method wherein at least one remaining portion has a number of sample points below a pre-determined threshold number of sample points. Hamilton et al. teaches a duration of a first time segment being longer than a duration of a second time segment (see pp. [0042] & fig. 6B). Thus the first time segment must possess a number of sample points lower than that of the second time segment. However the Hamilton et al. does not teach placing such data onto a computer readable medium.

Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of said data from one device to another.

In reference to **claim 48**, the Hamilton et al. device teaches method where said heart rate signal is indicative of a fetal heart rate signal (see pp. [0001]). Hamilton et al. does not teach placing such data onto a computer readable medium.

However it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of said data from one device to another.

**Claims 33 & 35 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Cohen (US 5520176 A).

In reference to **claims 33**, the Cohen reference teaches a method for segmenting a heart rate signal to identify heart rate feature events comprising of receiving a heart rate signal including a sequence of sample points (see Figs. 3 & 4) and the use of a processing unit for processing the heart rate signal to generate a set of segments (see fig. 1). Cohen also teaches each a segment being formed by enclosing a portion of said heart rate signal in a respective bounded area, the bounded area commencing at a start sample point of said heart rate signal and terminating at an end sample point of said heart rate signal wherein the sample points between said start sample point and end sample point lie within said bounded area (figs. 3 & 4). Cohen teaches processing the set of segments to generate a plurality of sections, each section being indicative of a heart rate feature and releasing a signal indicative of said plurality of sections (see column 3, lead lines 45-50). The Cohen et al. processor alone performs the function of the claimed multiple processing units.

The Hamilton et al publication does not explicitly teach placing all of the aforementioned information onto a computer readable storage medium.

However it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

In reference to **claim 35**, the Cohen reference does not teach the use of a computer readable storage medium wherein a bounded area associated with a users heart is a trapezoid, however the Hamilton et al. reference does teach bounded area is a trapezoid that can be defined as a parallelogram (see figs. 3A-D, 4, & 5).



Thus it would have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

**Claims 2, 18, & 44, are rejected** under 35 U.S.C. 103(a) as being unpatentable over Cohen (US 5520176 A) in view of Jelliffe et al. (US 2003/006090 A1).

The Cohen patent teaches the segmenting of heart rate signals, however Cohen does not teach the selection of features based on acceleration, deceleration and baseline events.

The Jelliffe et al. publication teaches the selection of events based on acceleration and baseline events, such a selection would inherently provide the user with deceleration events as well (see pp. [0024]).

Thus it would have been obvious to one of ordinary skill in the art to combine the aforementioned aspects of the Cohen device with the event capturing methods of the Jelliffe et al. publication it indicate to the user and/or medical practitioner where exactly the possibly problem causing event(s) may occur. It would also have been obvious to one of ordinary skill in the art to introduce the use of a computer readable medium to allow for the transport of data from one device to another.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The examiner wishes to cite the pre-grant publication by Sharf

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(US 2004/0236193 A1) as the result of its reference to fetal heart rate monitoring and signal sampling. The examiner also wishes to cite a patent by Bratteli (US 6733461 A) due to its use of an averaging method referred to as a line of best fit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darin R. Roberts whose telephone number is (571) 272-5558. The examiner can normally be reached on 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-9900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Darin Roberts  
Patent Examiner  
Art Unit 3762

Jeffrey Jastrzab  
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5/29/06